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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/622,337	07/18/2003	Thomas S. Wong	21901-07874	4849
758	7590	06/26/2007		
FENWICK & WEST LLP SILICON VALLEY CENTER 801 CALIFORNIA STREET MOUNTAIN VIEW, CA 94041			EXAMINER TSE, YOUNG TOI	
			ART UNIT 2611	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/622,337

Applicant(s)

WONG ET AL.

Examiner

YOUNG T. TSE

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20060314.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicants traversed the election/restriction requirement in the reply filed on April 20, 2007 has been fully considered by the examiner and the election/restriction requirement under 35 U.S.C. 121 has been withdrawn.

Drawings

2. The drawings are objected to because the block pertaining elements (110, 115, 130, 141, 142, 143, 144 and 150) of Figure 1, (130, 230 and 260) of Figures 2A and 2B and (400a, 400b, 430 and 460) of Figure 3 need to have descriptive labels in conformance with 37 CFR 1.84(n) and 1.84(o). For example, a descriptive label of "Receiver" should be inserted into Figure 1 to properly describe element (150). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the

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remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

3. The disclosure is objected to because of the following informalities: paragraph [0014], line 6, "signal 120" should be "signal 125"; paragraph [0029], line 15, "530" should be "520". Appropriate correction is required.

Claim Objections

4. Claims 1-7, 13-17 and 25-27 are objected to because of the following informalities:

In claim 1, line 4, "data signals" should be "a first data signal"; line 6, "data signals" should be "a second data signal". Wherein the dependent claims 2-7 depend either directly or indirectly upon the independent claim 1.

In claim 13, lines 14-15, "the differential digital data signal" should be "a first differential digital data signal"; line 21, "the digital data signal" should be "a second differential digital data signal". Wherein the dependent claims 14-17 depend either directly or indirectly upon the independent claim 13.

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In claim 25, line 2, "for the transmission" should be "for transmission"; line 9, "data signals" should be "data signal". Wherein the dependent claims 26 and 27 depend either directly or indirectly upon the independent claim 25.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims 1-27 contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

For example, the specification fails to describe which element(s) of the drawings shown in Figures 1-4 is the low impedance node or network as recited in claims 1, 4-5, 18, 21, and 24; the low impedance transmission line as recited in claims 8, 11-12 and 14; the first node and the second node as recited in claims 13 and 14; and the fixed impedance node as recited in claims 25 and 26.

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Further, the specification fails to describe that the low impedance transmission line is one of the group consisting of a 50-ohm coaxial cable, a 75-ohm coaxial cable, a stripline, a microstripline, and a PCB controlled impedance trace as recited in claim 11.

Furthermore, the specification fails to describe that the lower resistance value is one of about 50 ohms, about 75 ohms, about 100 ohms or about 500 ohms as recited in claim 17.

Furthermore, the specification fails to describe which element(s) of the drawings shown in Figures 1-4 is the means for isolating a DC voltage from the low impedance node to the wide-band receiver as recited in claim 20.

Furthermore, the specification fails to describe that the high data rate is between 500 Megabits per second and 3 Gigabits per second and the low data rate is orders of magnitude smaller than the high data rate as recited in claim 22.

Furthermore, the specification fails to describe which element(s) of the drawings shown in Figures 1-4 is the means for providing a fast time response further comprises means for matching a low output impedance of the low impedance node as recited in claim 24.

Furthermore, the specification fails to describe which element(s) of the drawings shown in Figures 1-4 is used for decoupling the low impedance node from the wide-band receiver with respect to a DC voltage as recited in claim 25.

Furthermore, the specification fails to describe which element(s) of the drawings shown in Figures 1-4 is used for matching an output impedance of the fixed impedance

node with the AC coupling network for a maximum power transfer of the digital data signals as recited in claim 26.

Furthermore, the specification fails to describe that the output impedance is in the range of about 50 to about 500 ohms as recited in claim 27.

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-12 and 18-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1 (lines 3 and 5), claim 4 (line 2), claim 5 (line 2), and claim 24 (line 1), the terms "the low impedance node", "the impedance network", "the low impedance node", and "the means" all lack antecedent basis.

In claim 1, the preamble recites an interface system coupling a fixed impedance node to a wide-band receiver for transmission of data signals of different data rates. However, the fixed impedance node does not recite in the body of the claim in order to achieve the goal of data transmission from the fixed impedance node to the wide-band receiver. Wherein the dependent claims 2-3 and 6-7 depend either directly or indirectly upon the independent claim 1.

In claim 8, the preamble recites an AC coupling interface system coupling a low impedance transmission line to an amplifier for the non-simultaneous transmission of data signals of different data rates. However, the amplifier does not recite in the body of the claim in order to achieve the goal of data transmission from the low impedance

transmission line to the amplifier. Wherein the dependent claims 9-12 depend either directly or indirectly upon the independent claim 8.

In claim 18, the preamble recites an interface system coupling a low impedance node to a wide-band receiver for transmission of data signals of different data rates. However, the low impedance node and the wide-band receiver do not recite in the body of the claim in order to achieve the goal of data transmission from the low impedance node to the wide-band receiver.

In claim 22, lines 2-3, the term "... the low data rate is orders of magnitude smaller than the high data rate" is not understood?

Wherein the dependent claims 19-21 and 23 depend either directly or indirectly upon the independent claim 18.

Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-3, 6-7 and 18-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Chun et al., U.S. Patent No. 4,280,221 (hereinafter "Chun").

Chun discloses a data source system element 10 shown in Fig. 3 comprising a data source 20 and a source interface 22 for transmitting two data rates, a high data rate of 100 KBITS/SEC and a low data rate of 12 KBITS/SEC to a receiver system

element 16 comprising a receiver interface 24 and a receiver 26 through a transmission line 18. The detailed embodiment of the source interface 22 of Fig. 3 is shown in Fig. 5 and the detailed embodiments of the line drivers 30 and 32 of Fig. 5 are shown in Figs. 8 and 9, respectively. Col. 9, lines 17-45.

Regarding claims 1, 6 and 18, the source interface 22 coupling a fixed impedance node from a first circuit (66, 68 of Fig. 8) or a second circuit (74, 76, 78 of Fig. 8) to a wide-band receiver (24) for transmission of data signals of different data rates, the source interface comprising: a first set of elements (current booster of Fig. 8) coupled to the fixed or low impedance node and the wide-band receiver for transmitting data signals at a first data rate during a first time period; and a second set of elements (the current booster of Fig. 8 and 32 of Fig. 9) coupled to the fixed or low impedance network and the wide-band receiver for transmitting data signals at a second data rate during a second time period.

Regarding claims 2-3, wherein the first set of elements and the second set of elements have one or more elements (current booster) in common and decouple a DC voltage (+V or -V) associated with the data signals.

Regarding claims 7 and 19, wherein the data signals are differential signals Line A 46 and line B 40) and the interface system has a differential circuit topology.

Regarding claims 20 and 21, the current boosters shown in Figs 8 and 9 isolate a DC voltage (+V or -V) from the fixed or low impedance node or provide a reference DC bias voltage to the wide-band receiver.

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11. Claims 18 is rejected under 35 U.S.C. 102(b) as being anticipated by Robinson et al., U.S. Publication No. 2002/0135845 A1 (hereinafter "Robinson").

Robinson discloses a fiber optical receiver 10 in Fig. 1 includes an opto-electronic transducer 12, a preamplifier circuit 14, and an adjustable bandwidth post-amplifier circuit 16. The detailed embodiment of the post-amplifier circuit 16 of Fig. 1 is shown in Fig. 4. See paragraphs [0018] and [0023].

Regarding claim 18, the post-amplifier circuit 16 comprises a wide bandwidth amplifier 104 for providing a short time response to a first digital data signal at a high data rate during a first time period controlled by a data rate control signal 28 and a narrow bandwidth amplifier 106 for providing a slow time response to a second digital data signal at a low data rate during a second time period controlled by the data rate control signal 28.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

14. Claims 1-3, 6-7 and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinson et al. in view of Chun et al..

Regarding claims 1 and 6, although Robinson fails to show or suggest that the selected high or low data rate is outputted to a wide-band receiver. Chun teaches that the source interface 22 shown in Fig. 3 or Fig. 8 is used for transmitting two data rates, a high data rate of 100 KBITS/SEC and a low data rate of 12 KBITS/SEC to a receiver system element 16 through a transmission line 18. Col. 9, lines 17-45.

Therefore, it would have been obvious to one of ordinary skill in the art to include a wide-band receiver in Robinson's fiber optical receiver 10 as taught by Chun in order to further processing the wide bandwidth or narrow bandwidth signal from the post-amplifier circuit 16.

Regarding claims 2-3, wherein the first set of elements and the second set of elements have one or more elements (current booster) in common and decouple a DC voltage (+V or -V) associated with the data signals.

Regarding claims 7 and 19, wherein the data signals are differential signals Line A 46 and line B 40) and the interface system has a differential circuit topology.

Regarding claims 20 and 21, the current boosters shown in Figs 8 and 9 isolate a DC voltage (+V or -V) from the fixed or low impedance node or provide a reference DC

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bias voltage to the wide-band receiver.

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

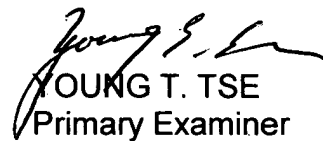
Propp et al. relates to a power line transmission system capable of substantially error-free data transmission at both low and high data rates.

Kole relates to a communication bus system comprises a pair of conductors for carrying differential bus signals and is operable in a selectable one of at least a low speed mode and a high speed mode.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YOUNG T. TSE whose telephone number is (571) 272-3051. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on (571) 272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


YOUNG T. TSE
Primary Examiner
Art Unit 2611